BlackBerry 10



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Legal notice

Version 10.3 visual refresh

Purposeful simplicity

The fresh new look of BlackBerry 10 reflects our commitment to purposeful simplicity. Thoughtful visual design improves comprehension, memory, and inference. Our interface is full of beautiful, precisioncrafted objects that productive people want to use every day. Browse through the UI Guidelines to see more examples of how the BlackBerry 10 visual environment is changing in version 10.3.

The guiding principles of the visual refresh are:

Black or white canvas becomes the base. BlackBerry

10 displays a striking all-white or all-black theme depending on device screen type or specific app theme selection. The uniformity of the theme opens up the screen and enhances readability. Content becomes the focus.

Precise and simplified for an unobtrusive

experience. You only need to look at a screen element once to understand what its purpose is and how it can help you.

Color for focus and signature actions. Color is not just decoration; it is a partner in productivity. Accent colors are used to denote an actionable item, an alert, or something requiring your attention.

Balanced tension between distinct shapes and use of whitespace. Basic geometric shapes like sharp squares and circles help to create tension, which is why they are the new primary shapes of BlackBerry 10. Whitespace is used as a tool to separate chunks of content and enhance legibility.

Version 10.2.1 example

9:00 AM - 10:00 AM (1 hr) Monday, May 5, 2014							
Mon	day, N	lay 5, 2	2014				_
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Version 10.3 example

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See the comparisons below to understand some of the most important design evolutions in the enhanced UI:

Simple, light, colorful

Heavy components and borders are replaced with a simple, flat UI that draws attention with a splash of color:



Simplified app icon design

App icons now have a bright, flat design that helps the user identify the app quickly. The semitransparent tile that previously anchored the icons to the home screen is now gone:





Revised action bars

Action bars now feature a prominent signature action and a more compact design. They move out of the way when the user doesn't need them:



Key principles



BlackBerry 10 is about communication, connected apps, and fast interactions. You don't need to spend a lot of time and effort with your app's UI. We give you the tools you need to build a great-looking UI so that you can focus on the business logic.

Explore the key principles of BlackBerry 10 and discover how you can bring them into your app.

A fluid environment

A great experience has no compromise

BlackBerry 10 provides a seamless experience that gives users full control and flexibility in every moment and with every touch. It's as natural and fluid as our actions are in the real world. The UI keeps the momentum going, allowing users to achieve their goals quickly and efficiently. Keep these principles in mind:

- Organize information in a logical and approachable way so that users can respond quickly.
- **Predict** what users want to do next in a given context.
- **Customize menus** for your app and introduce them at the right time and in the right place.

- Help people connect.
- **Don't interrupt** the flow between what users see and what they do next.

Communication at its core

Connect and get things done



What it is

It's giving people everywhere the power to connect, collaborate, and do what's most important to them. Your app is a communication tool. It's all about productive action.

Why it matters

Because the essence of the BlackBerry 10 experience is communication. People are social animals and your app can give them a chance to connect with others. When you streamline the experience, your users can stay in your app and spend less time switching between apps to communicate.

Example

Your app could integrate with BlackBerry Messenger, the phone, or text messaging.



Best practice

Integrate communication in a way that makes sense for your app. Always keep user goals in mind.

Content is king

Be selective about chrome



What it is

It's shining the spotlight on what people really care about. Let content be front and center, with nothing to obscure or clutter the scene. Open the shutters wide and let people enjoy the view.

Why it matters

Because people care about content, including photos, messages, and updates. Create an experience where content dominates. The options on the screen should stay out of the way but still convey a sense of control to the users. This is especially important for BlackBerry smartphones with a physical keyboard because the screen is smaller than on all-touch BlackBerry smartphones.

Examples

In the camera, the content is front and center. The most important action is a tap away, which makes it incredibly easy for users to take photos over and over again.

Display pictures on the full screen. Let a tap on the screen display an action bar with the most common actions for the photo. The action bar disappears after a few seconds of inactivity and returns the photo to primary focus.

In the calendar, UI components such as pickers and drop-down lists expand inline. Users stay in the original app context and can control the amount of information on the screen.

Best practices

Be selective when you add UI components to your screens. Use most screens for interacting with the content in your application. If you place frequently used UI components on the screen, do so judiciously. Every time you add a UI component to the screen, you show people less of what they care about.

Substitution of the recent call list, there's no "Today" header since the "Yesterday" header makes the "Today" section obvious.

Cinematic experience

Make your users movie stars



What it is

It's making people part of the big picture. Put the control in users' hands and keep everything at their fingertips. Infuse your application with fluid, natural gestures that make the screen feel expansive.

Why it matters

Because fluid, sweeping gestures are natural and make the screen feel larger than it is. It's much more effective and satisfying to move through a list by swiping across the screen instead of tapping a scroll bar. And it's more natural to interact with the list directly.

Example

If someone applies a filter to a photo, the visual treatment could change as their finger slides across the screen.

Best practice

Include gestures in your app that are contextual and reversible.

Fluid workflow

Make routines sing

What it is

It's making the experience smooth and effortless from start to finish. Clear away every obstacle and make your application smarter and users' repetitive actions faster. Anticipate each move and efficiently adapt to each response.

Why it matters

Because we're all different. Some people use their BlackBerry smartphone mostly for calls, others never leave BBM, and some are all about games. No matter what people do, make your application smarter and users' repetitive actions faster by adapting to individual usage patterns.

Examples

If someone's most frequent workflow is sending photos of their kids to their mother using Facebook, find ways to help them do it faster.

Provide actions in a context menu for things that people do often.

Try a context-sensitive approach in your app. If someone send emails to Leticia and Julie together more often than individually, why not provide an option to select both of them on one tap?



Best practice

It's okay if users need to execute several steps the first time that they perform an action, but when users do the same thing a few times, their patterns become more obvious. Identify usage patterns and adapt your UI to them.

Efficient ergonomics

Consider the context



What it is

It's designing the experience with use in mind: one hand for multi-tasking, two hands for speedy typing, and landscape for watching movies.

Why it matters

Because people usually interact with their smartphones in portrait orientation using one hand. Plus, BlackBerry smartphones with a physical keyboard only support the portrait orientation.

Examples

A list of search results grows from the bottom so that users can reach the top hit with their thumbs easily.

On BlackBerry smartphones with a physical keyboard, consider using shortcut keys to give users direct access to common actions for a specific screen. For example, let users press "T" to move to the top, "C" to compose a message, "S" to search, "I" to zoom in, and "O" to zoom out.



Best practices

Make sure that users can perform the most common actions in your app with one hand without changing their grip.

On all-touch smartphones, be careful with your app layout. Place the most common actions on the bottom two-thirds of the screen because a thumb travels more easily on a long screen.

Moments of charm

Surprise, delight, and show we're human



What it is

It's sprinkling moments of delight and making your app playful.

Why it matters

Because life isn't always serious. Think of ways to lighten up someone's day. By adding charm to your app, you show it was designed by and for people.

Examples

Consider the playfulness in how a photo is selected in Time Shift mode in the Camera app. These are ways to give your app personality and make it more engaging.

Best practice

Test your approach with your target users. The experience shouldn't be whimsical or cartoonish.
What's charming to some might be confusing or jarring to others.

The basics

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over ways to structure	# BlackBerry

Design units for measurement

A design unit (du) is a unit of length that simplifies the creation of layouts across devices that have different screen specifications. UI elements such as components and icons have a base design unit value that you can use to scale assets for all BlackBerry 10 devices.

A design unit is independent of a display's resolution and takes the standard user-viewing distance into account. One design unit equals approximately 0.69 mm of screen space. BlackBerry chose 0.69 mm after careful consideration of current and future screen specifications and how well the length fit into the rhythm of our user interface.

If you know the device's bucket, you can convert a design unit value into a pixel value.

Device Model	Screen resolution and density	Bucket
BlackBerry Z30 smartphone	720 x 1280 pixels	8
BlackBerry Z3 smartphone	295 ppi	
BlackBerry Leap smartphone		
BlackBerry Classic smartphone	720 x 720 pixels	8
	294 ppi	
BlackBerry Q10 smartphone	720 x 720 pixels	9
BlackBerry Q5 smartphone	330 ppi	
Porsche Design P'9983 smartphone from BlackBerry		
BlackBerry Z10 smartphone	768 x 1280 pixels	10
Porsche Design P'9982 smartphone from BlackBerry	356 ppi	
BlackBerry Passport smartphone	1440 x 1440 pixels	12
	452 ppi	

The design bucket value indicates the pixel size of one design unit on the device. For example, 1 du on the BlackBerry Q10 smartphone is 9 pixels. If you have a radio button that is 5×5 du, it equals 50×50 pixels on the BlackBerry Z10 smartphone and 40×40 pixels on the BlackBerry Z30 smartphone.

You can reverse the formula to calculate du from known pixel values, making asset scaling easy. For example, if you have a square button 114×114 pixels that you created for the BlackBerry Z10 smartphone and you want to figure out the design unit size to scale the image for a 1400×1400 future device, here's how:

- **1. Divide** 114 by 10 (the design bucket for the BlackBerry Z10) to get 11.4.
- 2. Round off to the nearest integer to get the du value (11 x 11 du).
- **3.** Multiply the du value by the design bucket of the new device (12) to get 132 x 132 pixels.

Wireframe prototyping tips and tools

Get your app together

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Download this handy prototyping slide deck, which contains all the wireframes you should need to mock up your app:

- Blank device frames for all-touch and physical keyboard devices.
- Components, menus, controls, fields and other UI assets, with editable labels.
- Touch gesture hand illustrations for diagramming interactions.
- Example screen mockups of common user interface contexts.

Simply add a blank slide, copy the elements you need, arrange, label, and share.

Wireframe Design Slides

Best practices for planning apps

Use the 80/20 rule. Try to define requirements and experiences around use cases that 80 percent of your users will encounter. This is especially vital when considering app settings. It's important to make sure the

remaining 20 percent of experience and error scenarios are covered, but they should not guide the initial wireframes. Work on alternate flows once the primary flow is defined.

Group related requirements. Don't try to wireframe each requirement in isolation. They need to work with the application and with the platform.

Do your homework. How do other apps in your class or genre work? Can you learn anything that will make your app better?

Remember BlackBerry 10 design principles. Don't wireframe something that feels out-of-place with the platform. Things don't have to be exactly the same, but they must behave consistently to avoid confusing the user.

Start with the big picture. Create the key screens of the overall application. This will help you focus on the main structure and goals of the app.

Tackle the key use cases. Spend time thinking about the most common tasks and build these out in encapsulated end-to-end flows.

Align and adjust. Think platform, not application. Something may feel right for your app, but won't work with all of BlackBerry 10. Keep in mind that you might also have multiple devices and device types to accommodate.

Don't worry about the details. Exact label text and visuals can come later. Include enough detail to make things clear, but avoid the overhead of keeping the document 100% reflective of the final app.

Dare to share. Show your wireframes to someone whose opinion you trust. They may be able to point out opportunities that you missed because you have been too close to the designs.

Using Cascades Exporter as a design tool

Once you have planned out your app with wireframes, consider using Adobe Photoshop to help make your designs a reality. The Cascades Exporter plug-in for Adobe Photoshop helps you speed up the design and development workflow by exporting graphics from Photoshop for use in a BlackBerry 10 Cascades app.

Get started by taking a look at the Cascades Exporter install instructions and documentation.

Application structure

Approaches to navigation

Choose a navigation structure based on the most important features in your app and the type of content that the app provides. Let users access the most frequent tasks quickly and don't overwhelm them with content or tasks that are less important. Determine which of the following approaches work the best for your app.

Tabs

Tabs allow you to structure content so that users can move easily between content of relatively equal importance.

Use when

You have distinct sections of content of relatively equal importance. Tabs always appear along the bottom of the screen in an action bar.

Examples

A clock might include tabs for a world clock, an alarm, a timer, and a stopwatch.

A music app might include tabs for artists, albums, songs, and playlists.

A **tab menu** (also known as a sidebar) is a vertically stacked, scrollable list of tabs. You can use a tab menu to hold less frequently accessed tabs, or you can use it instead of tabs along the bottom of the screen. When users tap the tab menu button at the bottom of the screen, the tab menu slides in from the left and appears to the left of the main view.

Best practices

Place the most frequently used tab in the middle tab position. This area of the action bar is the easiest place for users to target.

- **Include tabs on the first level** of an app hierarchy only.
- Use up to four tabs in an action bar. Include additional tabs in a tab menu.

In a tab menu, place the most frequently used tabs at the top. Place any tabs in the first level of the hierarchy at the top of the list.





Drill down

Drill-down directories let you structure content in a hierarchy and show selected parts of the content at each level.

Use when

A lot of structured, hierarchical content will be added to the app.

Example

A photo app might have vacation photos grouped by different trips. All of the photos can't be displayed on the first level, so users click an album to see that trip's photos. At the second level, you might present the photos from the trip as thumbnails. Clicking one of the photos opens it in full screen, as the third level in the hierarchy.

Best practice

Include a Back button in an action bar at the bottom of the screen so that users can navigate through the hierarchy.



Tab and drill down

A tab and drill down strategy allows you to combine both navigation approaches. Use tabs at the first level of an app, and then let users drill down into the content.

Example

A music app can have tabs for different genres. Users tap a playlist to see a list of songs.

Custom or unstructured navigation

Make sure that your custom approach provides a better experience than the approaches listed above. You should test the model thoroughly and refine it so that it's easy for users to learn.

Example

In a map, all information (such as points of interest and directions) appears directly on the map.

Back and peek behavior

If your application uses drill-down navigation, the content is structured in a hierarchy. Back and peek behavior lets users return to previously viewed levels of a hierarchy easily.

When users return to a previous screeen in a BlackBerry app, the movement is hierarchical. Moving back takes users to the previous level in the app hierarchy. Users don't necessarily return to screen that they viewed earlier.

The Back button can contain an icon and the title of the screen or tab that users would navigate back to. If the context is clear, you can use the title "Back" instead.

Use when

You create deeper levels in an app hierarchy. Make sure the Back button appears in the far left position in an action bar.

Examples

Users can return in three ways:

- **Tap** the Back button.
- **Swipe** their finger to the right on the content area.
- **Peek**at the previous level by touching the Back button and dragging their finger to the right, allowing them to see the previous level's contents without leaving their current screen.



Best practices

Don't put a Back button (or any other button) on the screen as a way for users to close an app. The only way for users to leave an app is by swiping up from the bottom of the screen.

In most cases, save automatically when users move back to the previous screen.

If you combine tabs and drill downs, make sure that the Back button navigates within the tab your user chose and does not unexpectedly move them to another tab's hierarchy.

Screen views

Before you lay out your screens, think about the type of app that you're designing and the type of content that you're providing.

You can lay out your app in a variety of ways. Choose the view that makes sense for your app, using the following views as inspiration:

List

Grid

Lets you give an overview of content that users can sort and filter, such as contacts or messages.

Lets you display content in a more visually appealing way by placing images in rows and columns.

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Free-form

Lets users navigate a large canvas of information, such as a map, a game, or an image.

Content

Lets you set the focus on a single item (for example, a contact card, an email message, or a Facebook post).





Screen structure

Action bar

An action bar is an area along the bottom of the screen that gives you a compact way to include actions and tabs that apply to the screen. The convenient location of the action bar lets users access actions and tabs easily and effectively.

You can set up your action bar to include a signature action (an action that is primary to the current screen, or performed often). Signature action icons are highlighted with a circular background in a theme-controlled color, and are elevated just above the action bar so that they stand out. Signature action icons float above the rest of the user interface when the user interacts with the screen (for example, scrolling a list), to ensure that they are always easy to interact with.



Use when

You want to include your app's most frequently used and relevant actions.

Don't use when

You want to include less frequent actions. Use an action menu instead. For example, include Delete at the bottom of an action menu instead of in an action bar.

Best practices

Fix action bars along the bottom of a screen. For immersive views, such as photos or videos, let the action bar disappear. Show it again when a user taps the screen.

Avoid filling up an action bar just because there's room, even if it means that only one action is displayed in the action bar. Try and avoid placing more than three actions on a bar.

Consider placing very important actions on the screen. For example, if the most important action for a photo is a user to comment on it, let the user drag the photo to reveal space for adding comments. Place other important actions, such as sharing, editing, and setting the photo as wallpaper, in the action bar.

Use the signature action, but only in contexts where it can help the user get things done faster. The function that you choose to be the signature action should be a high-volume feature (for example, Compose).



Title bar



A title bar is an area along the top of the screen that can contain a title, a segmented control, or actions. A title can help users understand the context of the current screen.

Use when

There's only one way to view the content and the context is not apparent.

Don't use when

The content conveys the context in a richer way. For example, a contact card can identify the context more easily with a picture and a name than a title can.

Tabs appear at the bottom of the screen.

Segmented controls

Segmented controls are a group of horizontally stacked buttons that let users see different aspects of the same content type (for example, top applications, top free applications, or recently released applications).

Use when

There are two to four ways for users to view the content and they might switch views frequently.

Don't use when

You're not sure whether to use segmented controls or tabs. Use tabs instead. Tabs are easier for users to interact with and understand.

Best practices

Place the segment that's most frequently used in the far left position. If you include an "All content" segment, place it in the far left position.

When users return to a view, show the content from the last filtered state. When users close an app and open it again, show the content from the segment in the far left position.



Don't allow segmented controls to scroll out of view unless you must show more content on the screen.

Make the font size smaller if a label doesn't fit in the segment.

If users can filter only some of the content on a screen, place segmented controls directly above the content that can be filtered.

If you combine segmented controls with tabs, make tabs the primary method of navigation and make sure that the segmented control filters content within a specific tab.

Actions in a title bar

If you implement a touch screen keyboard on a screen, actions in a title bar can help prevent users from submitting information accidentally by providing a physical separation between the action buttons and the keyboard.

Use when

You have a sheet and you want to help users complete and dismiss it easily. Learn more about sheets.

Don't use when

You need back navigation in a drill down navigation structure. Use the Back button in the action bar instead. An exception is if the screen is highly focused on text input or if back navigation is a primary action. In these cases, place the Back button in the title bar so that it isn't hidden by a touch screen keyboard.

Best practice

Place positive actions at the top-right corner of the screen (actions such as Send, Accept, and Save). Place destructive actions, such as Cancel, Close, and Back, at the top-left corner of the screen.

Menus

Action menus

Action menus contain actions that are less frequently used than actions that appear in the action bar.

Context menus

Context menus give users a quick way to access the most common actions for an item. Users don't have to open an item to act on it.


Application menus

Application menus hold important actions that are independent of context and common across the app (for example, Settings, Log Out, and About).

Learn more about *menus*.



Different screen sizes

Designing a UI to accommodate different screen sizes can be a challenge. If you're designing an app for different BlackBerry smartphones, keep reading to discover ways to design it more efficiently.

If you use UI components that are included in the BlackBerry Application Platform, the components are scaled based on the screen size. If you use custom UI components, try dynamic layouts, such as a dock or stack layout.

See below for the full display specifications of released devices:

Model and input method	Displa y	Screen size	Aspect ratio	Screen density
	LCD	768 x 1280 pixels	15:9	356 ppi
Image: State		4.19 in		0.07125 mm (dot pitch)
Annie Matti Direct plan.				
BlackBerry Z10 smartphone				
Touch screen				

Model and input method	Displa y	Screen size	Aspect ratio	Screen density
	OLED	720 x 1280 pixels	16:9	295 ppi
BlackBerry Z30 smartphone		4.97 in		0.0860 mm (dot pitch)
Touch screen				
	OLED	720 x 720 pixels	1:1 square	330 ppi
		3.1 in		0.077 mm (dot pitch)

Model and input method	Displa y	Screen size	Aspect ratio	Screen density
Project Brief R Project Brief R Projec				
BlackBerry Q10 smartphone				
Touch screen and physical keyboard				
	LCD	720 x 720 pixels	1:1 square	330 ppi
		3.1 in		0.077 mm (dot pitch)

Model and input method	Displa	Screen size	Aspect ratio	Screen density
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Image: State of the	3			
! BlackBerry				
BlackBerry Q5 smartphone				
Touch screen and physical keyboard				

Model and input method	Displa y	Screen size	Aspect ratio	Screen density
PORSCHE DESIGN	LCD	768 x 1280 pixels	15:9	356 ppi
		4.19 in		0.07125 mm (dot pitch)
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ASDFGHJKL				
OZXCVBNM@				
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### BlackBerry				
Porsche Design P'9982 smartphone from BlackBerry				
Touch screen				

Model and input method	Displa y	Screen size	Aspect ratio	Screen density
	LCD	720 x 1280 pixels	16:9	295 ppi
		(see note below)		(see note below)
Parakanan 72 ana tahanan		4.98 in		0.0860 mm (dot pitch)
BiackBerry 23 smartphone				
Touch screen				

Model and input method	Displa y	Screen size	Aspect ratio	Screen density
	OLED	720 x 720 pixels	1:1	330 ppi
		3.1 in		0.077 mm (dot pitch)
Porsche Design P'9983 smartphone from BlackBerry				
Touch screen and physical keyboard				

Model and input method	Displa y	Screen size	Aspect ratio	Screen density
BlackBerry	LCD	1440 x 1440 pixels	1:1	453 ppi
Image: Construction of the construc		4.5 in		0.0561 mm (dot pitch)
BlackBerry Passport smartphone				
Touch screen and touch-sensitive physical keyboard				

Model and input method	Displa y	Screen size	Aspect ratio	Screen density
	LCD	720 x 720 pixels	1:1	294 ppi
Image: StackBerry Image: StackBerry <t< td=""><td></td><td>3.5 in</td><td></td><td>0.0287 mm (dot pitch)</td></t<>		3.5 in		0.0287 mm (dot pitch)
BlackBerry Classic smartphone				
Touch screen and physical keyboard, including a trackpad and navigation keys				

Model and input method	Displa y	Screen size	Aspect ratio	Screen density
	LCD	720 x 1280 pixels	16:9	294 ppi
		4.99 in		0.02875 mm (dot pitch)
Touch screen				

Note: The BlackBerry Z3 smartphone's native resolution is 540 x 960 pixels and its screen density is 221 ppi (0.1149 mm dot pitch), but it simulates a 720 x 1280 pixels and 295 (0.0860 mm dot pitch) ppi display, so apps should target those higher values.

Tips for a square screen

Best practices for optimizing layouts

Make sure that your layouts scale across devices. Use dock and stack layouts so that layouts scale automatically. If you created custom layouts in the past, or used fixed or absolute layouts, you might need to adjust the sizes and positions of your UI components manually to fit different screen sizes.

Pay attention to background bitmaps and assets that use the full screen. If you created custom bitmaps and assets for larger BlackBerry smartphone screens, you might need to scale those assets by 94% if you want to use the assets for smaller BlackBerry smartphone screens.

Make static segments scrollable. Consider making static segment controls scrollable with the main view to make sure there's enough space to present the information they contain.

Rethink background images. Consider using a repeatable background pattern instead of a static image. Repeatable patterns expand to fit any screen resolution.

Don't create views in landscape orientation for smartphones with a 1:1 aspect ratio. The BlackBerry Application Platform does not support landscape orientation on smartphones with a 1:1 aspect ratio.

Best practices for focusing on content and primary tasks

Make sure that the most important information is visible. Use non-sticky mode for titles and filters. Adjust the initial scroll position of views so that the most important information is in focus. Reconsider the organization of your content so that vital information is shown clearly.

Optimize screen real estate. Consider allowing UI components such as title bars to scroll out of view. If you're designing an immersive application, such as a video player, where users typically stay in the application for a significant period of time, UI components should disappear from the screen after a few moments with no interaction and reappear when a user starts interacting with the screen again.

Make UI components semi-transparent if they overlap with content such as pictures. This effect allows users to focus on the content instead of the component.

Consider how camera sensors and media formats use different aspect ratios. When you are using the camera, or displaying photos or video, consider whether it's better to crop to maximize the content area or scale to show the full content.

Best practices for optimizing split-screen views

Adjust the height of each view. Review and optimize the height of each view so that there's enough room for users to see and interact with the content.

If you cannot optimize, remove. If you can't optimize your split-screen views, consider removing them for smaller screens.

Portrait and landscape orientation

In most cases, you should lay out your app in portrait view. Users tend to hold their BlackBerry smartphone in one hand, and therefore, typically use it in portrait view. Plus, smartphones with a physical keyboard use portrait view exclusively.

Sometimes, landscape view can offer benefits and provide a better experience for users of all-touch BlackBerry smartphones. For example, movies and games. Movies are made to be viewed in wide screen, and games often require two-handed interaction, which suits a landscape orientation well.

In some cases, you might lay out your application in both portrait and landscape orientation. This approach lets you provide a different focus in each orientation to enrich the user experience. For example, you could show a basic calculator in portrait orientation and a more advanced version in landscape orientation.

Best practices

If you create custom UI components, make sure the components appear correctly in both orientations. If you use BlackBerry UI components, they're designed to transition seamlessly if users switch between views.

Maintain consistency. Don't force your users to switch between orientations manually as they use your app. If a screen supports landscape orientation, any subsequent screen should also be available in that orientation.

Don't create views in landscape orientation for smartphones with a 1:1 aspect ratio. The BlackBerry Application Platform does not support landscape orientation on smartphones with a 1:1 aspect ratio.





Platform overview



Gestures

Instead of poking at UI components, users interact with content on the screen using gestures. Avoid cluttering the screen with UI components and design your application to support the available gestures. For example, let users zoom into a picture by spreading two fingers instead of tapping a button to zoom in incrementally.

Bezel gestures

BlackBerry 10 smartphones support gestures from the device bezel, which is the frame around the display area of the screen. You don't need to implement these gestures in your app. They are provided automatically.

Wake up the device

Display notifications

Display the BlackBerry Minimize applications Hub









Display a touch screen keyboard



Display an application menu



Content gestures

If they apply to your app, you can use the following gestures to let users manipulate content directly.

Scroll







Select one item



Progress through a file

Peek

Open an action menu

Zoom in

Zoom out



Move an item from one place to another



Best practice

If users select a few items at the same time and try to perform an action that can't be performed on all of them (for example, because some are locked), complete the action on the items that can be acted on. Display a toast to indicate why the action wasn't performed on some items.

Touch-sensitive physical keyboard gestures

The BlackBerry Passport smartphone features a touch-sensitive physical keyboard. This keyboard allows users to control the device by swiping their fingers over the surface of the keys.

Fine cursor control and scrolling

Double-tap the keyboard, then swipe your finger to move the cursor. Swipe up and down to scroll through documents.

Swipe down on the keyboard while you are typing to show symbols.

Open the symbol picker



Delete text

Swipe right to left on the keyboard while you are typing to delete a word quickly.



Select a suggested word

Place your finger on the keyboard below the suggested word, and flick it up toward the screen.





Keyboards

Touch screen keyboard

A touch screen keyboard appears on all-touch BlackBerry smartphones when a user taps in a text field or text area. A user can also display the keyboard by dragging two fingers from the bottom of the screen. A user can hide the keyboard by dragging two fingers to the bottom of the screen, or by touching and holding the space key.

Best practices

For a task that mostly requires typing (for example, replying to a message or adding a new contact), give focus to the correct field so that the touch screen keyboard appears when the screen opens.

For a task where typing is optional (for example, the text message chat view, which is used mostly for reading a conversation thread), don't put focus on the text field. Allow the user to tap the text field to bring up the keyboard when they are ready to type.

If you use a static layout, make sure users can still reach important parts of the UI. If you need to, place actions inline.

The keyboard covers the action bar, so try to avoid placing important actions where the keyboard will pop up often.



Physical keyboard

Many users (especially existing BlackBerry smartphone users), prefer a physical keyboard to get things done quickly. Consider scenarios where it makes sense for users to start typing to complete a task in your app. For example, in date and time pickers, a user can choose the time by starting to type.

Best practices

Use shortcut keys to make repetitive tasks easier and promote one-handed use. Give users direct access to common actions for a specific screen. For example, allow users to press "T" to move to the top, "C" to compose a message, "S" to search, "I" to zoom in, and "O" to zoom out.

Use the keyboard for direct action. For example, set focus on a field so that users can just start typing.

Don't force users to switch between the keyboard and the touch screen. Let users use the keyboard to complete a task.

Shortcuts are just shortcuts. Make sure there is another way of performing an action in your app.





Trackpad and Classic navigation keys

Users can use the physical trackpad to navigate and highlight text. The trackpad also gives users better control over the cursor or pointer and provides an unobstructed view of the touch screen. Highlights appear on controls as users navigate with the trackpad so it is easy to tell which item has focus.

In most cases, an action occurs when users release the trackpad, not when they click it. However, when users click and hold the trackpad, the action occurs before users release the trackpad.

Users can perform the following actions with the trackpad:

User action	Result
Click the trackpad.	Performs default actions on an item. For example, launching an app from an app icon, or opening a list or grid item.
Click and hold the trackpad.	Opens an action menu associated with an item, if applicable.
Click the trackpad while pressing the Shift key.	Highlights text or highlights multiple items in sequence. For example, selecting multiple messages in the BlackBerry Hub.
Move a finger on the trackpad.	Moves the highlight, cursor, or pointer.
Swipe across the trackpad.	Moves the content on the screen quickly in the opposite direction of the swipe.

BlackBerry Classic also features navigation keys that provide one-press shortcuts for common commands such as answering a phone call or returning to a previous screen:

Button	Function
Call key	Answers a callOpens the Phone app
Menu key	 Opens the app's action menu Selects a highlighted menu item Opens the app's application menu (press and hold)
Back key	Returns to the previous screen, or the Active Frames screenCloses a menu
End key	 Ends a call. Returns to the Active Frames screen Turns off the device (press and hold)

Best practices

Assign a default action that is performed when users click the trackpad.

Allow users to move easily from one item to another by swiping across the trackpad. For example, allow users to see the next or previous picture in a collection of pictures.

Allow movement between touch screen and trackpad interactions to flow seamlessly during a task.

Allow touch screen and trackpad interactions to complement each other. For example, users can scroll to find content using the touch screen and then use the trackpad to move the cursor to highlight a specific sentence.

Define the trackpad navigation path logically. You can set the path that the trackpad highlight follows as users scroll through your UI. Make sure that the focus doesn't jump around unexpectedly.

Avoid customization of the navigation keys. Users expect the navigation keys to work the same way in every app and context.

Notifications

Notifications tell users about app events, such as a new email or a meeting reminder. You can trigger a notification when a new event occurs, or new information is available that users might care about. The more important and time-critical the notification, the more intrusive it should be.

Use the following information to decide how best to notify users without overwhelming them or interrupting them too often.

Splat indicator



The simplest and most subtle way to tell users about a new event is to add a splat indicator to the application icon. This notification shows users that new information is available without interrupting them or forcing them to act.

Use for

New podcasts or game levels available to download.

Don't use for

Alarms, which are too time-critical, or new posts in a social network, which are too frequent.

Message in the BlackBerry Hub

If your app sends a message (such as an email or a text message), you can add the message to the BlackBerry Hub. When a new message arrives, a splat indicator is added to your app's icon.

Use for

Email, text, and Facebook messages.

Don't use for

Reminders or new podcasts.



Item in the notification list

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If you want to tell users something important, but your app doesn't send messages, you can add your item to the notification list in the BlackBerry Hub. When the item is no longer relevant, remove it from the list (for example, a low battery notification is removed when a user connects a BlackBerry smartphone to a charger).

If users get multiple notifications from the same app, the notifications are grouped together. Once the notification is read, you should delete it automatically from the list.

When a new item appears in the notification list, a splat notification is added to your app's icon.

Use for

Travel updates and accessible Wi-Fi networks.

Don't use for

Messages, which should appear in the BlackBerry Hub, and Facebook comments or likes, which are too frequent.

Dialog box

If you have a critical event or information that is timesensitive, you can display a dialog box. Use this approach judiciously, since it interrupts your users and forces them to act.

Use for

Incoming calls, alarms, and calendar reminders.

Don't use for

Messages.



Toasts



A toast is a simple, non-modal, pop-up message that allows an application to give short feedback. A basic toast can contain text, an icon, or a combination of the two (for example, volume level display or progress feedback). Toasts are very short-lived; they should appear on the screen closest to where an action was performed and disappear in just three seconds, giving the user enough time to read but not be annoyed by the message.

Special intrusive toasts reserved for undoing a delete command can also be used. This toast includes an Undo button.



Use for

Short, one-line messages that users can read in under 3 seconds.

Don't use for

Long messages that take more than 3 seconds to read. Intrusive toasts must only be used to undo deletions.

LED

The LED is an important notification on BlackBerry devices. When it flashes, it tells users that something happened.

Use when

Adding messages to the BlackBerry Hub, adding items to the notification list, or displaying a dialog box.

Don't use when

Adding a splat indicator to your app icon.



Sharing and the Invocation Framework

The BlackBerry Application Platform lets you give users access to external services, such as Facebook, from a UI component or action item in your app. For example, users can tap

- Share to share a photo with a Facebook friend
- Open in to open an image in an image editor
- Set as to set a ring tone
- Contact to call a contact

You can give users access to external services in the action bar, action menu, or context menu.



Best practices



Include a Cancel button in the top-left corner of the screen.

Avoid providing access to external services directly from the action bar. Allow users to access groups of services from the action menu instead.

Cards

You can use cards to show screens from another app in your app. For example, users can tap a PDF attached to an email message and view it in a previewer instead of switching apps. By using cards in your app, you let users complete a task entirely in your app. Choose from the following three types of cards:

Previewers

Users open a previewer by tapping a file type that you added previewer support to. A previewer transitions in from the right side of the screen to the left. Include an action bar with a button and applicable actions on the previewer.

Use for

Displaying content such as photos, emails, and documents, or play audio and video files.



Composers

A composer transitions in from the right to the left of the screen. Use a sheet pattern to lay out the screen.

Use for

Creating content such as a new contact, calendar entry, or status update.



Pickers

A picker transitions in from the right to the left of the screen. Use a *sheet* to lay out the screen. You can also include pickers in a composer.

Use for

Selecting content, such as adding recipients in an address field or adding attachments to a message.


Language

The BlackBerry voice is optimistic, inspirational, passionate, intuitive, conversational, and approachable. It's simple to understand but still respected by the technologically savvy.

Best practices for text

Be helpful. Tell users what to do and how to do it. For example, use "Please close some applications to free up resources and try again." instead of "Low memory error."

Be concise. Consider the user's context. Include only what users need to know. For example, if a user cannot save a photo, use "The media card is full." instead of "The file could not be saved because the media card is full."

Use positive language. Avoid blaming users for errors or unexpected conditions. Instead, focus on what users can do to resolve the issues. For example, use "Please move to an area with a stronger wireless signal and try again." instead of "Call failed."

Be conversational. Use simple, everyday language that users understand. For example, use "The media card is full." instead of "Error writing file to disk."

Accessibility

You can help meet the needs of a diverse group of users by designing applications that people with disabilities or special needs can use.

Following the best practices for designing accessible applications can benefit a broad range of users, including the typical users of your application.

Best practices

Stay focused on the user's immediate task.

Display only the information that users need at any one moment. For example, simplify data selection and presentation by displaying information in a logical order.

Group components, and simplify according to common usage or common functionality to minimize the cognitive load for users. Use the least number of buttons, or other clickable areas, as possible.

Use components consistently so that users can recognize common UI components easily. For example, use buttons to initiate actions. Avoid using other components, such as hyperlinks, to initiate actions.

Make actions recoverable. For example, if the user clicks on the wrong button, they should be able to go back to where they were and try again easily.



Provide enough space between components so that users can distinguish one control from another and you can make clickable items such as buttons slightly larger. Narrow the chances that the user might click the wrong button by mistake.

Pay attention to color. Use a high contrast color scheme for your design, which can make elements easier to distinguish from the background colors of your UI and help define which control has focus. Avoid relying solely on color as a way to communicate (for example, using colored buttons with no text label).

Allow the user to change font sizes. Users with visual impairments often increase the font size on their BlackBerry smartphones to enhance readability, so your app should follow their preferences.

Add labels or captions to images. A user interface that consists of images and only a few text elements that can be read by screen readers is difficult for users with visual impairments. If your UI relies on images, make sure each image has alternate text that can be read aloud by a screen reader.

Include closed captioning with your media. If you are including video with your app, consider adding closed captioning support.

Expose UI elements to assistive technologies to make them easier to interpret. For example, set the accessibility properties for controls so they can be easily identified by a screen reader.

Consider how your app behaves when users turn on assistive technologies, such as screen magnification, a larger font size, or a screen reader. For example, is your UI laid out logically so its flow makes sense when read aloud by a screen reader?

Make each gesture easy to discover. If a gesture applies only to a particular part of the UI, make sure that you explain the mechanics to the user.

Patterns



Menus

Action menus

Action menus contain actions that are used less often than actions in the action bar and are not prominent or frequent enough to place inline on the screen. People care about content, so you should minimize the number of options that you display on the screen.

Users open an action menu by tapping the action menu button on the right side of the action bar.



Best practices

- **Include only the actions that apply to the screen.** Don't repeat actions on all screens in your app. Place actions that apply to the whole app in the application menu.
- **Consider including shortcuts to common actions** on BlackBerry smartphones with a physical keyboard. When an action menu is open, let users use a shortcut key for common actions.

Place application-defined actions at the top of the menu (for example, Add as friend, or Play).

Place contextual actions that are defined by the platform in the middle of the menu. Items like Call, BBM, Share, and Open in are provided by the invocation framework.

Context menus

Context menus give users a quick way to use the most common actions for an item in your app. Context menus are similar to right-click context menus in desktop applications, but are designed for touch screen interfaces. If you use a context menu in your app, users don't have to open the item to act on it.

Use when

You want to add an action for an item that is visible on the screen.

You have an existing BlackBerry app that uses shortcut keys or pop-up menus. Include the shortcut actions and pop-up actions in context menus. Context menus replace pop-up or graphical context menus.

Don't use when

Most users probably need the action often. Place the action inline on the screen instead.

Example

If a user touches and holds on a photo, actions such as Share, Edit, Move to folder, and Delete could appear in the context menu.



Best practices

Include only the most common actions for the item. Don't clutter the menu with irrelevant functionality. Include actions for items that users can act on, such as contacts, links, telephone numbers, images, and list items.

Don't include the most intuitive action. Instead, perform the most intuitive action when users tap an item. For example, if users can tap an item to open it, then don't include Open in the context menu.

Let users stay in the current context. Keep users in the app to complete a task. You can integrate your app with other applications to avoid a dead end.

Include an icon and label for each item. Make sure that the icons are meaningful to users and that the labels are concise. It is important that icons reflect the actions because only the icons appear when a user touches and holds an item. The user needs to drag their finger to the left to see the labels.

Consider including shortcuts to common actions on BlackBerry smartphones with a physical keyboard. When an action menu is open, allow users to perform a common action by pressing a shortcut key.

Application menus

Application menus hold important actions that are common for the application and aren't contextspecific (for example, Settings, Log Out, or Help).

Users open an application menu by swiping down from the top of the screen. Users dismiss the menu by swiping up toward the top of the screen or by tapping outside the menu.

Best practices

Include as few actions as possible. The menu holds only five actions. Don't include frequent actions, navigation links, view-specific actions (for example, Edit or Sort), or actions that are already on the screen.

If your app contains settings or help, place the Settings icon on the far right side of the menu and the Help icon on the far left.

Use the same icon size and font size as items in an action bar. Make the height of the application menu slightly larger than the height of an action bar. Use the same depth treatment (drop shadow) as you would for an action menu.





For actions that open a new view (such as Settings and Help), slide the menu up and slide the new view in from the right. For actions that open a dialog box or toast, slide the menu up and then display the dialog box or toast.

Forms

Forms ask users to enter or select information. For example, when a user edits a contact's details or creates a meeting request, they're using a form.

Best practices

Minimize the amount of text that users need to type. Ask only for relevant information. Include smart default values and let users choose from pickers where possible. Try to store and display information that users enter so that they don't need to enter the same information more than once.

If the form has multiple fields, set the focus on the first field. This helps users complete the form quickly. If the first field isn't a text field, don't set the focus on any component. Otherwise, users might miss the first component.



Best practices for input

Allow users to press Enter to move to the next text field. Make sure that the form scrolls so that users can see the next field.

Be flexible with formats. For example, for phone numbers, accept (519) 555-0199, 5195550199, and 519-555-0199.

Use a specific type of all-touch keyboard if the input is limited to a specific type of entry. For example, use a numeric keyboard for entering numbers.

Create appropriately sized fields. Let the size of a field indicate how much information users should enter.

Use progressive disclosure. If the form contains infrequently used fields or if a set of fields appear as the result of a previous field, use progressive disclosure to reveal fields at the appropriate time.

Best practices for groups and labels

Group and order fields logically. For example, group related items together or include the most common items first.

Use space, labels, dividers, and different font sizes to create hierarchy as needed, but avoid creating too much visual noise. Use bordered sections sparingly.

Limit the use of labels. Include hint text in fields to minimize the need for labels. This approach helps keep forms compact and content-focused. In some cases, you might need a label if the field contains a default value or if the description of the field is too long to include as hint text.

Place labels above their associated fields to provide a stronger visual hierarchy for small screens and to allow extra space for translated text, if required. If your app is intended for landscape orientation, consider placing labels beside their associated fields.

Best practices for validation and submission

Validate information as users progress through the form. Don't make the user wait for the information they entered to validate against a server before they can access subsequent fields in the form.

If you create custom UI components, use a distinct visual cue (for example, a red box) to inform users of errors. Try to add descriptive error text close to where the error occurs. If you can't validate the information until a user submits the form and there are errors in multiple fields, scroll to the first field in the form that contains an error. BlackBerry UI components contain built-in error states.

Disable a Submit action until the user enters all of the required data. If the user tries to select a disabled Submit action, display an inline message or a toast to identify the missing information.

To make text entry faster, allow users to submit a form by pressing Enter. For example, when entering a username and password.

Sheets

Sheets are full-screen views you can use for tasks. Sheets overlay the current context by sliding in from the right of the screen onto a full-screen view. When users complete the task, sheets slide right and disappear, and users return to their location on the screen.

Users can't swipe left or right on the content area of a sheet to navigate back, but they can peek at the previous screen by dragging their finger to the right. This approach helps prevent users from dismissing the sheet accidentally.

Use when

You need to initiate a task from more than one place.

You need to initiate temporary tasks, such as showing a contact in an app other than the Contacts app.

You have tasks that require users to enter information in several fields, such as creating a new message or meeting.

Don't use when

You have simple tasks or tasks that don't require navigation.



Best practices

Include a title bar with action buttons at the top of the sheet. This helps prevent users from submitting information accidentally by providing physical space between the action buttons from the touch screen keyboard.

Disable positive actions until users enter the required information.

Put positive actions, such as Send, Share, and Save, as buttons in a title bar at the top-right corner of the screen.

Put destructive actions, such as Cancel, Close, and Back, at the top-left corner of the screen.

Dialog boxes and toasts

Dialog boxes

Dialog boxes have many roles in BlackBerry 10. They can be used as notifications, display progress and activity, show errors, and help with deleting text or files. As useful and attention-getting as dialog boxes are, you should try to avoid implementing them whenever possible. They are modal, and interrupt the user's interaction with the UI flow.

When possible, present feedback and hints that you might normally add to a dialog box inline, in the context where the user is. This type of feedback doesn't interrupt the user's flow and doesn't force them to act.

The goal of most dialog boxes is for the user to scan the information they contain and perform an action in just a few seconds.

Best practices

Don't use up screen real estate. Dialog boxes should be less than half a screen in height and should never block important text or images that might help the user decide how to interact with the dialog box. If the information or complexity in your dialog box needs more space, consider using cards and sheets instead, which are more flexible.



Limit the number of buttons. Dialog boxes support one to four buttons that allow user input. Using four buttons should be uncommon, because they increase the complexity of the message and can burden the user. The buttons are placed next to each other horizontally, not stacked vertically one on top of the other.

Maintain consistency across associated dialog boxes. If multiple subsequent dialog boxes are needed to complete a flow, you must pay close attention to the placement of the buttons. If the purpose of the dialog boxes is similar, keep the buttons in the same general position on each dialog box to avoid unintentional actions.

Avoid using "Don't show again" or "Always ask" check boxes. Many users lack the knowledge to decide if a notification dialog box should be shown to them always or never, so they choose the dialog box to be shown at each event. This choice slows the flow and undermines their experience. Think carefully about the frequency of these types of dialog boxes and consider instructing the user how to change app settings in the body of the dialog box instead of using these check boxes.

Best practices

Use short, relevant titles. Short titles confirm for the user which application or function the dialog box is associated with.

Keep the body text brief. It should clearly summarize in no more than two sentences what the user is asked to do with the dialog box. If it is a confirmation, it should be formulated as a question. If it is a prompt, it should instruct the user.

Use clear, impactful, single-word actions on your buttons. The actions are the most important element and by using verbs such as "Delete" or "Cancel", users can often select an action without reading the body of the dialog box.

Toasts

A toast is a simple, non-modal pop-up message that allows an application to give brief feedback that disappears from the UI quickly. A basic toast can contain text, an icon, or a combination of the two (for example, displaying volume level or progress feedback).

Special intrusive toasts reserved exclusively for undoing a delete command can also be used. This toast includes an Undo button.

Since toasts are not as disruptive as dialog boxes, they are often the best choice to get a simple message across to users.

Toasts are short-lived. They should disappear in just 3 seconds, giving the user enough time to read but not be delayed by the message.

Best practices

Keep context in mind. Toasts should appear close to where an action was performed. The top of the screen is the best spot for sheet actions such as Send or Cancel. The center is prime placement when the toast is not immediately connected to a part of the screen (for example, to indicate that sound has been muted). The bottom is suitable for toasts that are triggered by actions in the action bar.



Don't be verbose. Any text you add to a toast should be readable in less than 3 seconds. Try to limit yourself to single-sentence, single-line messages.

Settings

Settings are options that give users control over certain features in your app (for example, turning sound on or off in a game). Since settings can be overwhelming to users, try to minimize the number of settings that you provide.

Do I need a setting?







Where should I include settings?

Include settings on the application menu that appears when users swipe down from the top of the screen. Place a Settings icon in the top-right corner of the application menu.

How should I organize settings?

Position the most frequently used or most

important settings first to make it easier for users to change settings quickly.

Group related settings together. Use headings and dividers to distinguish groups of settings. If there are no logical relationships among settings, try to organize them by component type (for example, keep toggle switches together and check boxes together).

Let users access advanced features through progressive disclosure (for example, show a few basic settings before revealing more advanced features on a second screen). If there are dependencies with other fields, position the dependent fields after the controlling field.

Keep the hierarchy of settings as flat as possible. If you need to organize the settings into categories, let users drill down only two levels.

Include a title bar and an action bar on the Settings screen. The action bar should also include a Back button that allows users to return to the previous screen.

Notifications

Set how you're notified of new emails, messages, phone calls, and more.

Note: Sound OFF will also mute keyboard and camera sounds.

Learn More



What else should I consider?

Save changes implicitly.

Let users search for settings. Register each setting with the search framework so that they can be included in search results. Include additional meaningful search terms (for example, synonyms for the setting).

Progress and activity

Users should feel confident that actions that they want, such as rescaling an image or opening a screen, are progressing as expected.

Sometimes, apps need time to complete complex calculations or to download data (for example, displaying a local weather forecast for example). When a process takes longer than expected, let users know about the process and its progress. If the user has to wait more than 3 seconds, show a progress or activity indicator.

Best practices

Use a progress indicator if you know how long the action will take.

Use an activity indicator if you want to show that your app is working, but you can't determine how long it will take.

Give users a break. Consider letting users tap a progress or activity indicator to show an option to pause or cancel a downloading or uploading process.

Don't interrupt. When you implement an indicator, let users interact with the application while the indicator is displayed by using a toast or inline control.

Don't use too much space. Place the indicator where it will not obscure the view of the screen too much, for example, at the bottom of the screen, just above the action bar.

Activity indicator



Inline indicators

Inline indicators are non-modal ways to let users see progress information and continue with what they're doing.

Use when

There's a UI component you can attach the indicator to.

Examples

- Synchronizing an inbox
- Updating an RSS feed with a few channels



Dialogs

Dialogs are a modal way to show progress or activity. Users can't interact with the screen during the

Toasts

Toasts are a non-modal way to show progress while users remain on the screen and are allowed to continue. process. Activity indicators should be used in the title of the dialog, not in the body.

Use when

- You can't process in the background.
- The app needs to finish a process before the user can use it again.

Example

Connecting to a remote server.

For more best practices for activity and progress indicators, see *Components*.



Use when

The UI doesn't have individual components you can attach the indicator to.

Example

Uploading an image

Saving

In most cases, you should save automatically when users create or change data (such as the details for a contact) and leave the screen. This lets users get things done without being interrupted.

Prompting to save

In rare cases, you should save more explicitly. Do this only when it might take a long time for users to recreate the changes. Prompting to save interrupts users and makes them indicate whether they want to save or delete data.

Examples

When users

- Set up a Wi-Fi connection
- Type an email message
- Create a meeting invitation
- Edit an image or video



Best practices

Show users the item was saved by changing it visually on the original screen. For example, you could use an animation to show that the alarm settings were saved. Avoid using notifications like toasts, which can interrupt users.

If you prompt users to save, keep positive action buttons inactive such as Send, Save, or Done until users make all of the required changes.

Deleting

Users delete information daily. Before you support deleting in your app, think about the type of information users might delete and how important it is. If users delete something accidentally, they might want to retrieve it, but prompting users to confirm every deletion can slow them down.

You can apply most of the information about deleting to the actions of removing and resetting.

- **Deleting:** Deleting an item from the BlackBerry device
- **Removing:** Removing an item but not deleting it from the device (for example, deleting a song from a playlist)
- **Resetting:** Returning values to a predefined state and losing all changes

Use the criteria below to determine how you should support deleting information in your app:

Critical content

Users might lose valuable data that affects how the device functions.

Examples:

Resetting the device or an app.

Removing an email account.



Confirmation type

Show a dialog box that describes the outcome of the deletion and requires users to confirm that they understand the consequences before the deletion occurs.

Important content

Users might lose valuable application data or content in an application.

Examples:

Deleting an email.

Deleting a contact.

Deleting a playlist.

Confirmation type

Show an intrusive toast that lets users undelete. The toast should disappear within 3 seconds of the user interacting with the screen. Toasts with buttons must be used to undo deletions only.



Unimportant content

Users might reproduce the content easily.

Examples:

Removing a song from a playlist.

Removing an alarm setting.

Removing a tag from a photo.

Confirmation type

Don't ask users to confirm deletion.

Implementation of the delete function

Users can delete or remove items in the following ways. Choose the way that works best for your app.

- In a context menu, users can touch and hold an item or use the multi-select gesture to open the context menu. Place the Delete action at the bottom of the menu.
- In an action bar, users can open the action menu. Place the Delete action at the bottom of the menu. You can use this approach when users are in a content view (such as reading an email, looking at a photo, or viewing the details for a contact).
- Users tap an Edit button to act on a lot of data at one time.

Place a reset action on a Settings screen. Don't use a context menu or action bar.

Best practices

Don't place a Delete action in an action bar. Use an action menu instead to minimize the risk of users deleting an item accidentally. Since the action menu button appears at the bottom right of the screen and the Delete action appears at the bottom of the action menu, users can double-tap to delete an item.

If users delete an item from a list or grid, remove the item from the screen using a delete animation.

If users delete an item from a content view (like an email or contact), remove it from the screen using a delete animation and return users to the previous screen.

Avoiding and handling errors

Before you handle errors, try to avoid them. The more errors you can handle and remove during development, the happier your users will be. Here are some ways you can avoid errors:

- As you design your app, test it with target users and adjust the workflow to help users avoid errors.
- Prompt users with default values.
- Create fields of a size that reflects how much information users should enter.
- Be flexible with formats. For example, for phone numbers, accept (519) 555-0199, 5195550199, and 519-555-0199.

If you need to inform users of an error

Carefully consider whether you need to inform users of an error. If you do, do it in the least disruptive way you can.

Inline notifications

	- 6	•	
Title text		_	
Enter text h	ere		
Lorem ipsu Error message	ım		
< Back	¢ Forward	_	
=,	BlackB	erry	

Inline notifications keep users in the context of a task and don't force users to respond before continuing.

Examples

A user entered an improperly formatted email address.

A user entered an incorrect password.

Implementation

Attach the notification to the affected item. You can add a subtle animation to show where the error is.

Toasts

Toasts are useful when an inline notification isn't possible. Toasts also let users to continue without stopping what they are doing.

Examples

An image didn't upload successfully.

New messages don't appear because the device isn't connected to a wireless network.

Implementation

Display a toast on the screen. The toast should disappear after 3 seconds.



Dialog boxes

		۲
库卡	3:04m	H÷
Call Failure		
This number i the number a	s unavailable. I nd try again.	Please check
	Ok	
4 on	3 m	0
	8 TUV	9 wxv
		#
		⊠
	<u>.</u>	
	BlackBe	rrv

Dialog boxes are essential when users must acknowledge an error before they can move forward.

Example

Restarting an application.

Use

Display a dialog box that users must respond to before they can continue.

Best practices

Tell users about errors as soon as you can. If a user enters an incorrect phone number, you can display an inline notification as soon as they leave the text field.

Keep action buttons inactive (such as Send, Share, or Next) until users enter the required information and it's validated.

Suggest a solution. Don't just state the problem; help users recover. For example, a BlackBerry device isn't connected to a wireless network, you can prompt the user to connect to a Wi-Fi network.

Offer to fix issues that affect performance. If a user has many browser tabs open, you can suggest closing some tabs to improve browsing.

Don't tell users that an action was successful. Let them feel confident in the success of their actions.

Don't reset values that users enter unless the values are confidential, such as passwords.

Components

Cancel Add	6		
		-	
	Cancel	Add	See
	Calendar		Home
Calendar	Subject		
Calendar	tocation		
	Event Time		
		All da	y 🕤 09
	Starts		
Subject	17.Aug	12	05
oubject	18 Aug	u.	10
	19 Aug Tunity	14	15
	20.kug	15	20
	21.6-0	16	25

Discover the individual widgets and building blocks of the UI

Pickers

Use a picker when you want users to choose from two to three sets of interconnected values, such as the day, month, and year of an appointment, or the hour and minute for a timer. You can also use a picker to simplify a complex UI and reduce the number of steps in a workflow by allowing users to select multiple values in one step.

Don't use when

Users need to select from only one set of values. Use a drop-down list instead.

Picker		^
20 nov	09	50
21 nov	10	55
22 nov Friday	11	00
23 nov	12	05
24 nov	13	10

Drop-down lists

Dropdown	Value 🔨	Use a d
Value 1 Sub value 2		single v make c stream
Value 3 Sub value 4		elemen
Value 5 Sub value 6	~	Don'
Value 7 Sub value 8		Users r interco
Value 9		an appo

Use a drop-down list when you want users to choose a single value from a larger set. Drop-down lists can make complex screens more compact and streamlined by collapsing many options into one element.

Don't use when

Users need to choose from two to three sets of interconnected values, such as the date and time of an appointment. Use a picker instead.

Best practices for drop-down lists

Use the value users are most likely to choose as the default value.

Don't use "Yes" and "No" as list values. Use a check box instead, and rephrase the option to describe the action.

Lists

A list presents content as list items, usually as an entry point to the next step in the navigation hierarchy. Lists can be displayed in a stacked or grid layout. To read more about lists, see <u>Screen views</u>.



Best practice for lists

If you use images, populate the list as soon as possible so that list item text appears before all images are loaded.

Dividers and headers

Use dividers and headers to create a visual hierarchy to separate groups of items that belong together.



Best practices for dividers and headers

Use a divider as a simple visual barrier, to separate items in a container or list.

Use a header to separate sections in a list. A header contains one or two strings to label the section.

Buttons

Use a button to initiate an action.

This is a button

Pressed

Best practices for buttons

Set the button that users are more likely to tap as the default button. Don't make a button for a destructive action the default.

Use single-word labels where possible.

Use verbs that describe the associated action, such as "Cancel," "Delete," or "Save."

Text fields and text areas

Use a text field to let users input a single line of text, such as a contact name or a password.

Use a text area to let users input several lines of text, such as a comment or a message.

Label text

Password

Learn more about text input in Keyboards and Forms.

Best practices for text fields and text areas

Include hint text in fields so that you need fewer labels. You might need a label if the field has a default value or if the field's description is too long as hint text.

Try to reduce the text users need to type. Let users choose items from pickers when you can. Try to store and display information that users enter so they don't have to type it repeatedly.

Use word prediction in text fields only with text that is likely in the dictionary, not in password, phone number, or name fields. The predictions might get in the way in these fields.

Activity and progress indicators

Use an activity and progress indicators to show users that your app is working and to show them the process and its progress.

Use an activity indicator when you want to show that your app is working, but you can't determine how long the process will take.



Use a progress indicator when you can determine how long the process will take.

PROGRESS		
PAUSE		

Learn more about progress and activity indicators.

Best practices for activity and progress indicators

• Always indicate progress when a process takes more than 3 seconds to complete.

If list content is being retrieved through the cloud (for example, third-party pictures), populate the list as content is received so users can interact with the content that's available.

Incorporate an inline solution if you can.

For progress indicators, show users the progress state (for example, "Uploading 5 of 7 pictures," "Uploading 2.4/4 Mb," or "4:24").

Check boxes, radio buttons, and toggle switches

Use check boxes, radio buttons, and toggle switches to let users select options.

Check boxes

Use check boxes when users can select multiple items or options.





Radio buttons

Use radio buttons when users can choose among more than two mutually exclusive options.



Toggle switches

Use a toggle switch when users can choose between two options, such as On and Off. You can also use a toggle switch if you want to make a setting harder for users to change accidentally.


Best practices for check boxes and radio buttons

Create a touch target area for the whole row and label. Check boxes and radio buttons have small visible areas.

Use positive labels where possible. For example, use Show instead of Hide.

Best practice for toggle switches

Use terms that identify the state of the option, not the action required to change the state. For example, "On" indicates the current state, but "Turn on" describes an action.

Sliders

Use a slider to control settings with a wide range or to show a preview of the change (for settings like volume level or screen brightness). You can also use a slider for fast forwarding and rewinding media files.



Users drag the slider from left to right, or double-tap it to jump to predefined increments.

Best practice for sliders

Combine sliders with images or strings that explain the context, such as progress of a media file or the level of a filter that is being applied to a photo.

Touch targets

Users touch the screen with their fingertips, so touch targets (also called hit areas) for UI components should be large enough for users to use without frustration. If you use BlackBerry UI components, you don't need to worry about the size of the touch target for each UI component. The sizes are designed to be large enough for users to touch with a finger without having to hit the target precisely.

If you create custom UI components, remember that the size of the touch target depends on the ppi of the screen. If you are designing your app for different BlackBerry devices, create a touch target for the pixel density of each screen size.

Best practices for custom UI components

Create touch targets. For BlackBerry smartphones, create touch targets that are at least 101 x 101 pixels (7.2 mm).

Make the size of the touch target larger than the visible UI component. Provide enough space around each component so that users can initiate an action easily. The extra space provides leniency for users whose attention is divided or those who are on the go.

For check boxes and radio buttons, create a touch target area for the entire row and the associated label. These UI components have small visible areas.

Make the size of the release area larger than the visible UI component. The extra space allows for imprecise interactions, such as when a finger moves after initially touching the screen.

Test the size of each touch target with your users.

Highlight behavior

Highlighting helps users identify the item that they're acting on. The highlight on a component behaves differently depending on the component and the context. If you use BlackBerry UI components, highlighting is built into the component.

Best practices for highlighting custom components

For binary interactions, highlight the component when a user touches it. Remove the highlight when the user moves their finger off the control. The highlight should return when the control is touched again, unless the control scrolls with the view.

If users scroll through a list or view (for example, a grid view), don't highlight individual items.

If an item requires continuous interaction (for example, a slider), highlight the item until the user releases their finger. In this case, you might need to lock other items that allow scrolling, such as lists.

Don't let users highlight items they can't act on. Disable components by dimming them or remove them from the screen.



Highlighting in action: Touch and hold highlight

Users can touch and hold list and grid items to bring up context menus. To give the user a visual clue that the context menu will be triggered, the item cycles through a three-step highlight progression:

Grid items



The user begins the touch and hold action. A solid 4pixel border appears around the grid item.

As the user continues to hold, a gradient forms inside the solid border. This effect is subtle so that the content of the grid item (which is often a photo) is not obscured.

As the user releases their finger, a solid 8-pixel border appears around the grid item and the context menu appears.

List items



The user begins the touch and hold action. A solid 4 pixel border appears around the list item.

As the user continues to hold, the interior of the list item begins to fill with a gradient.

3

As the user releases their finger, the fill gradient solidifies and the context menu appears.

Empty states

In some situations, lists may not contain any initial data because no content is currently available, or the user hasn't created content yet. This state is called an empty state.

Best practices

Don't show an empty screen. The app should use the empty space to promote content creation (for example, a contact, note, or calendar event) or prompt the user to initiate a synchronization to populate the list with content.

Use dummy list items. It can be helpful to include text prompts and an accompanying image or control that calls the user to action or explains why the space is currently empty.



Audio and visual style



Color

BlackBerry 10 UI design follows a specific color palette that all apps use by default, but you can brand your app with a signature color. This use of color can be a dramatic statement because all of the core screen components can be colorized, except for text selection and fine cursor controls.

Only a single primary reference color is needed to colorize an app. A color algorithm calculates matching base and highlight colors from that single color value so that your app has a polished look and appealing gradients throughout. If you want more control over the palette, you have the option of explicitly specifying the base color yourself.

Look at the palettes below for some good color choices that look nice in both the dark and bright visual themes. The default BlackBerry 10 primary color is Sky Blue, which is prominently displayed in the action bar's signature action button.





Best practices for choosing colors

Consider the bright and dark themes. If your app is designed to run in both themes, your choice of colors should look good across themes.

- **Don't go to extremes.** Choosing a color that is too dark or too bright might make it difficult for your users to see screen elements against the black or white background due to lack of contrast.
- **Think of accessibility.** Some of your users might be color blind, which could limit the range of colors they can see on the screen, making it difficult to see and use certain controls.

Be careful with the base color. In most cases, it is best to define only the primary color and let the system calculate the base color. Going with the calculated base is a good way to ensure that your intended colors are retained in future versions of the user interface. If you do want to define a base color, make sure that it is a similar hue but slightly darker version of your primary color (as shown in the sample palettes).

Keep the default font colors. The white or black font colors should be retained in almost all circumstances to maintain readability on components such as buttons and title bars.

Application icons



Designing an icon for your BlackBerry smartphone application lets you showcase your app to BlackBerry device users. In the BlackBerry World storefront, an icon is the first introduction that users have to your app. The icon also appears on the home screen as a way for users to open your app.

Your application name label appears below the icon.

Best practices

- **For devices with a screen resolution of 720 x 720 pixels** create an icon that is 90 x 90 pixels.
- **For devices with a screen resolution of 768 x 1280 pixels** create an icon that is 110 x 110 pixels.
- **For devices with a screen resolution of 720 x 1280 pixels** create an icon that is 96 x 96 pixels.
- For devices with a screen resolution of 1440 x 1440 pixels create an icon that is 144 x 144 pixels.
- **Focus on a single iconic metaphor that clearly represents the application.** Think of your icon as a road sign that people understand quickly.
- **Use a silhouette** to differentiate your icon from other icons.
- **Try to maintain consistency** with other BlackBerry application icons in scale, volume, and color palette.

Basic shapes

App icons are based on basic shapes. Most of the rounded squares and circles used in the UI have exactly the same size and proportions as the shapes you see below.



Focus area and lighting

If you use a symbol in your icon, make it the same size as the symbols in other BlackBerry application icons. The symbol should be 62% of the total size of your icon. Note that the lighting source appears to be shining on the upper left of the icon.



Color palette

Limit the number of colors that you use in your icon. The colors shown here are used in BlackBerry application icons.



Active Frames

An Active Frame (also called an application cover) appears on the home screen. Users tap an Active Frame to re-open the app.

When you are deciding whether to create an Active Frame for your application, consider the following:

- Is there a single item that users should know about when the app is minimized (for example, a calendar shows the next event or a weather app shows the current temperature)? If so, create an Active Frame.
- Is it more important for users to see the state of the app when it is minimized? If so, you don't need to create an Active Frame. A scaled-down version of the current app screen displays as the Active Frame.



Best practices

- For smartphones with a 720 x 1280 screen resolution, create an image that is 319 pixels
- Future smartphones with a 1440 x 1440 screen resolution can display two sizes of Active

wide by 437 pixels high. A footer appears automatically and includes the title of your application. The text appears in Slate Pro Font at regular weight and is set to 30 pixels high.

For smartphones with a 768 x 1280 screen resolution, create an image that is 334 pixels wide by 396 pixels high. A footer appears automatically and includes the title of your application. The text appears in Slate Pro Font at regular weight and is set to 35 pixels high.

For smartphones with a 720 x 720 screen resolution, create an image that is 310 pixels wide by 211 pixels high. A footer appears automatically and includes the title of your application. The text appears in Slate Pro Font at regular weight and is set to 30 pixels high. **Frames.** Large Active Frames are 440 pixels wide by 486 pixels high. Small Active Frames are 440 pixels wide by 195 pixels high.

Frame, use the Slate Pro Font at regular weight and set it to 35 pixels high. Set secondary text to 30 pixels high. In some cases (for example, with a time stamp), you can set the font size to 24 pixels high.

Place the most important information near the top of the Active Frame. Only the top half of the Active Frame appears on BlackBerry smartphones with a physical keyboard.

Avoid including too much information on the Active Frame.

Header

You can make the header a solid color or make it semi-transparent if you want a bigger image.

Use Slate Pro Font at regular weight and set it to 25 pixels high. If you include an avatar, make it 50 x 50 pixels.

For devices with a 720 x 1280 screen resolution



For devices with a 768 x 1280 screen resolution



For devices with a 720 x 720 screen resolution

Grid

You can lay out images in a grid format.

For devices with a 720 x 1280 screen resolution



For devices with a 768 x 1280 screen resolution



310 x 211 px

For devices with a 720 x 720 screen resolution

Small and large-sized Active Frames

See below for examples of a large and small Active Frame, which can be used on future devices with a 1440 x 1440 screen resolution.

A large Active Frame, with a list view



A small Active Frame, with a grid view



Splash screens

A splash screen appears when a user opens your app. If you don't define a splash screen, a default BlackBerry splash screen will appear.

Apps, like people, have only one chance to make a good first impression, so get creative and make a splash.

Best practices

Don't crowd the splash screen with too much content. A simple layout of well-selected, wellplaced elements is best.

Provide useful information. Consider adding information such as the app version or app loading progress to your splash screen.



Earconography sound design



Advanced mobile computing platforms such as BlackBerry 10 not only include a UI, they also provide a sonic language that is represented by audio notifications, event feedback, and system sounds.

BlackBerry 10 is the world's first platform to offer the universal *earconography* approach to sound design for standardized audio notification events. A universal sound language has existed for decades in the analog world, for example, door bells, alarms, phone ringers, and desk bells. Anyone who hears these sounds knows what is being communicated immediately.

The goal of earconography is to achieve a sonic language with all audio notification events so that the user is more informed about the who, what, why, and when of an event. You can build the same kind of familiarity with your app's notifications by following universal sound patterns, but with the aesthetic freedom of slight sonic variations.

Consider the visual language of a graphical UI. An icon of an envelope can be different colors, have a stamp on it (or not), or be tilted 25 degrees, but as long as it still looks like an envelope, users will know what it represents. Same story for sounds.

You can build variation into the base sounds easily if you think of each sound effect as having three layers:

- X is the fixed structural pattern that identifies a specific earconography sonic event that occurs (for example, phone, text, or reminder). This is like the structural pattern of Morse code, which is specific and different for each letter, but isn't really about sound. Morse code can even be 'played' by a light source.
- Y introduces textures and instruments to provide tonal variation and sonic identity to ensure each event is unique and differentiated from all other notifications in your suite.
- **Z** is the treatment layer that provides a variable amount of waveform modification. This includes effects processing such as reverb, delay, modulation, gain, panning, and Doppler. These effects provide more complexity, indicate urgency, and allow you to customize and personalize the sound.

BlackBerry 10 base sounds

Email messages

A four-note ascending pitch flam (1/16th notes at 200bpm) pattern with equal timing intervals, in the mid range of the assortment (the default email notification is G3, D4, G4) with a natural sounding medium sustain that is not phone-like. The Y-layer has warm and rich instrumentation, on top of the baseline brand sound.

BBM

A two-note ascending pitch pattern in a higher range than email messages (E3, B4) with a moderately tight release/sustain. On top of the brand baseline instrument, the Y-layer uses clarity bells to provide differentiation from the email message notification.

BBM Video

A hybrid notification language, where the universal ringer is applied to the standard BBM pattern. A twonote descending repeated two times (E4, A3, rest, E3, A3) with a longer, phone ringer style sustain/release that is repeated several times like a phone ringer. The Y-layer is the same as BBM to associate BBM Video with BBM.

Text

A one-note, single shot (F#4) with a tight, short release. The single note is appropriate given the frequency of text messages. The Y-layer instrumentation used here could be similar to the phone notification to associate these two classic cell phone features.

Phone

A two four-note traditional telephone alternating ring pattern, with equal timing intervals and duration in the upper range (G4, D4, G4, D4, G4, D4, G4) and a longer sustain/release. Additional melodies and patterns can be explored for additional variations. The Y-layer should contain high frequency instrumentation for definition and transmission, as well as tonal character for fullness and balance.

Timer

An alert with three equally spaced notes of the same frequency with a super tight sustain/release. Equal silence is added between repeats, with two repeats minimum in a higher register range for improved transmission. (A4, rest, A4, rest, A4). This notification is stark, with a 'system-like' style and sound to differentiate it from notifications that orginate from an outside source (for example, phone or messages).

Reminders

An attention getting alert with a two-note ascending lead-in of tight release, followed by slower timer pattern (three equal interval chimes), like the hourly chimes of a clock in 1/4 notes at 190bpm with a medium sustain (G3,G4, D4,rest, D4, rest, D4). The Y-layer effect sounds like a gentle, yet persistent chime, to create association with existing real-world reminders, such as the notification tone when a car door is opened.

Third party/generic

A four-note ascending/descending pattern with the first note accented, played in a broken rhythm, differentiated from email/messaging with equal timing and a moderately tight release (G3, rest G3, D4, C4). No Y-layer is applied, to avoid confusion with applications from your brand.

Best practices

- **Your files should have as little silence as possible** at the head and tail of the file. Any silence should be uniform to promote a linear playback performance.
- **Pushed notification effects** should be .m4a format, with a 48 khz sampling rate, and should use either a constant or average bit rate of no lower than 128 kbps.
- **UI feedback effects** should be full-resolution .wav format in order to achieve low latency playback for responsive user feedback.
- **A good use of sounds is a rare use of sounds**. Don't include feedback for something that happens every few seconds in your app, like the movement from one screen to another, or the activation of a control.
- **Above all, your notifications should not be annoying**. Choose instrumentation, pitch, and volume that can be heard several times a day without annoying the user.

In-app icons

The design of your app's icons is especially important because they are the main ways that your user triggers your app's most essential features. Check out the types of icons that you can create, how to build and style your icons, and tips and tricks for getting the most from the icons in your application.

Themes

Some BlackBerry devices feature an *OLED display* that uses a dark version of the standard BlackBerry 10 theme. Here are examples of in-app icons used in the light and dark themes:

Light theme



Creating icons

The process below describes the main steps you can follow to create your icons.

Step 1

Find an appropriate metaphor for the function or physical object that the icon should represent. Try out different variations and pick the one that's easiest to recognize.

Step 2

Create the icon shapes using the information in *Metaphors*. Use a vector application (such as Adobe Illustrator) and apply the information from *Building blocks*.

Note where your icon appears in the UI and set up the artboard in your design application accordingly. Use pixel units and make sure you use pixel snapping.

Step 3

Import the shape to a pixel application (such as Adobe Photoshop) and keep it as a shape layer. Use snapping and make sure that straight edges are sharp and aligned. If you don't use snapping, nudge the shape points to avoid blurry edges.

Make sure that you set the canvas to the correct width and height.

Apply the treatment rules from the Building blocks topic and save the image as PNG-24 with transparency.

Step 4

Test the icon with other icons, comparing the weight and style.

Put the icon on a BlackBerry device and test it in context.

Types and sizes

BlackBerry smartphones use different sizes for in-app icons and indicators.

Keep the main graphical elements within the inner area of the icon or indicator to allow for a UI buffer zone. The focal area refers to the size of the symbol within the icon itself.

Action bar and menu icons

Large icons

8 x 8 du (focal area 5.5 x 5.5 du)

Large icons are the most common. Apps use them most often in these UI contexts:

Action bar with tab icons



Action menu icons



Tab menu icons



Content area icons



Application menu icons



Context menu icons



Components and small buttons

Medium icons

Use the medium icon size for components. $7 \times 7 du$ (focal area $4.5 \times 4.5 du$).

Small icons

Use the small icon size for small buttons.

6 x 6 du (focal area 4.5 x 4.5 du)



Indicators

Indicators are small icons used in the content area to show extra information (for example, status). If you create an indicator, follow the design guidelines for icons listed above. Reduce the amount of detail, and reduce the number of pixels by one for the largest lines. Follow the size and alignment guidelines below:

Large indicators

5 x 4 du

Small indicators

3 x 3 du



Alignment



Recommended: Make indicators smaller than the adjacent text. Bottom-align indicators to the baseline.



Not recommended: The first indicator is not bottomaligned. The second indicator is larger than the text.

Metaphors

Icons should be pictorial and convey meaning through a resemblance to a physical object or function. When you design the icons for your app, create them with a professional and premium design that is authentic and uses natural dimensions. Icons should be:

- Modern
- Highly recognizable
- Single-colored

- High contrast
- Low-to-mid detailed
- Equally weighted

In addition, consider the following guidelines:

Resemblance

Make sure that the outline and shape of the icon resemble the physical object or its function as much as possible. Stay true to the meaning of the icon. Focus on the key outlines of common objects. In most cases, this approach makes the icon highly recognizable. The result should stand on its own, without any explanatory text.



Viewing angle

To make an icon highly recognizable, design it so that it is viewed from one side only. In general, don't use angles or rotations. Icons should not use any 3-D perspective, but can be aligned to 45° to fill the focal area. This approach results in a more balanced icon weight.



Recommended

Not recommended



Recommended

Not recommended

Focus

It is very important to emphasize the meaning of the function or object by setting focus on the correct part of the icon, especially for icons that are composed of more than one object. You can set the focus by making an object within the icon heavier than the rest of the parts. In most cases, make the foremost object the heaviest element. Icons treated this way are balanced with the surrounding icons.



No focus

Recommended

Too much focus

Level of detail

Icons should be as simple as possible. However, with the high resolution screens of modern smartphones, you can add detail to make the icons appear more recognizable, crafted, and professional.

Avoid adding detail for the sake of adding detail. Add detail where it makes sense and where it enhances the readability of the icon. A high density of detail can make an icon cluttered. Not enough detail might make the icon unrecognizable. The golden rule is to keep detail to a minimum without losing the characteristics of the icon.







Too little detail

Recommended

Too much detail

Building blocks

Focus

Try to keep the majority of the icon shape within the focal area to create balance among icons.

In some cases, an icon might need to expand into the safe frame to include a common shape, splat indicator or text.





Not recommended

Splat indicators



Splat indicators can overlay the top-right corner of an icon. Text can overlay the bottom center of an icon.

Treatment

Add a subtle gradient to icons.

To keep the icon as sharp as possible, don't use extra effects. Don't use colors for the enabled state (except the content area icons).

Enabled on a bright background



Top of the gradient:

- Hex #4F4F4F
- R 79 G 79 B 79

Bottom of the gradient:

- Hex #363636
- R 54 G 54 B 54

The disabled state is at 50% opacity.

Enabled on a dark background



Top of the gradient:

- Hex #E3E3E3
- R 227 G 227 B 227

Bottom of the gradient:

- Hex #D1D1D1
- R 209 G 209 B 209

The disabled state is at 50% opacity.

Selected



Top of the gradient:

- Hex #3CBCE7
- R 60 G 188 B 231

Bottom of the gradient:

- Hex #01A8DF
- R1 G168 B223

The disabled state is at 50% opacity.

Colors

Use color for content area icons only. Stay true to the color palette and imitate the gradient values to keep the design coherent.



Shapes and lines

You can create icons in any shape as long as the silhouette is simple, clear, and true to the metaphor. The silhouette must be a minimum of 4 pixels at the thinnest part to clearly define the outer part of the icon. Detail in the icon can be smaller and narrower (a minimum of 2 pixels).

Round the outer corners slightly, but keep the shape as close as possible to the object or function that it represents. Round line caps according to the thickness of the line. Keep arrow stems hard.

Cuts and objects

If you divide an icon into multiple objects, include a 3-pixel gap to separate the objects. The gap should be equally thick along the foremost object. To maintain readability and minimize clutter, your icon should not contain more than three objects.

If an icon contains duplicate objects, the foremost object should be bigger than the object portrayed in the back. The back object should be 15% smaller, but maintain the line and silhouette thickness.

Common shapes

You can add common shapes to icons to indicate functionality or direction, as a complement to the metaphor. The function should be the icon itself, but in some cases, add-ons strengthen the purpose of the icon.




The default placement of common shapes is at the bottom right corner. Depending on the shape of the main icon, you might need to adjust the add-on vertically so that the add-on looks like a separate object.



Recommended: A Forward folder icon with correct positioning of the common shape.

Not recommended: The forward shape is placed incorrectly. Stay true to the logic of forward and backward.

Not recommended: The main icon and the common shape look like the same object.

On and off states

Icons that appear in on and off states follow the same rules across the UI. You can define the off state by adding a crossbar at 45 degrees with a cut-out shadow in negative space to enhance the bar. The crossbar extends equally beyond the main shape past the bottom-left corner and the top-right corner.



Delete, close, and cancel



Delete: Use Delete when something is completely removed from the system (for example, files, images, and applications).

Close: Use Close when part of something is removed (for example, a window, list item, or an instance in a group selection).

Cancel: Use Cancel for a behavior (for example, if a user edits something and doesn't want to save the changes, provide the option to cancel).

Transitions

It's a good practice to create a UI experience that is both functional and usable-meaning that users can understand and carry out actions in an application. However, in today's competitive market, you might want to create an application that is more than just functional and usable. One way is to create an experience that strikes an emotional chord with your users.

Incorporating transitions (animations) into your application can help strike that chord. You want users to create an emotional bond with your application and enjoy using it. Strike a balance between performance and emotion.

Best practices

Make transitions sequential. A simple, efficient transition helps users make sense of what's happening more quickly.

Compound transitions. Like a symphony, compounded effects can trigger more of an emotional response than a single effect. A combination of transitions looks sophisticated and can really impress users. Too much of a good thing can be overwhelming, however, so try to limit the number of transitions to two per element.

Make transitions interactive. You can create an emotional effect when user actions trigger transitions.

Fuse the smart and the beautiful. The combination of these two virtues always impresses.

Designing for OLED displays

Some BlackBerry smartphones have an OLED screen instead of a traditional LCD screen. From a visual design perspective, this type of screen has higher contrast and clarity than an LCD screen. However, the lighter the image on the screen, the more power the device consumes.

Additionally, brighter pixels burn down faster which can cause an undesirable screen effect called burn-in, where pixels lose their luminosity and color vibrancy over time. Think of each OLED pixel as a candle. When you burn a candle, it burns down slowly and never recovers. The higher the flame on the candle, the faster it burns down.

•	
Quotes	
A	blackbeily
Abelson/Sussman	Quotes
Douglas Adams	A
Jougias Adams	Abelson/Sussman
Bilal Ahsan	Douglas Adams
Anonymous	Bilal Ahsan
13 13	Christenher Meyander
Boris Beizer	Christopher Alexander
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Best practices for optimizing battery life and reducing screen burn-in

Adapt your color scheme. Bright colors and UI components in static positions (for example, title bars and action bars) can increase screen burn-in. The darker an image is, the less power it uses. Try and use a black theme and adjust light backgrounds to use less power while still preserving readability.

Consider removing subtle patterns and textures. Use pure black where possible. Using pure black also allows you to blend the UI with the black hardware elements that surround it.

Typography

Slate Pro Font is the preferred font for the BlackBerry 10 smartphones because it is elegant and legible, allowing users to access information quickly and easily.

BlackBerry 10 uses medium, regular, and light font weights, as well as light italic type. BlackBerry 10 uses extra, extra small to large font sizes. The extra large and extra, extra large sizes are CSS standards for font scaling.

Ham is Turkey Daddy's buying the paper Santa's little helper Finns här några snälla barn?

ABCDEFGHIJKLM NOPQRSTUVWXYZ abcdefghijklm nopqrstuvwxyz

Slate Pro Font medium

ABCDEFGHIJKLM NOPQRSTUVWXYZ abcdefghijklm nopqrstuvwxyz

Slate Pro Font light

ABCDEFGHIJKLM NOPQRSTUVWXYZ abcdefghijkIm nopqrstuvwxyz

Slate Pro Font regular

ABCDEFGHIJKLM NOPQRSTUVWXYZ abcdefghijkIm nopqrstuvwxyz

Slate Pro Font light italic

Text size x small | 4.8 points | 24 px Text size x small | 6 points | 30 px Text size small | 7.11 points | 35 px Text size medium | 8 points | 40 px Text size primary | 9 points | 45 px Text size large | 10 points | 50 px Text size x large | 12 points | 59 px **Text size xx large | 16 points | 79 px**

The following information shows the colors for text on bright and dark backgrounds:



Visual asset sizing chart

The following chart shows the pixel dimensions of common visual assets for various BlackBerry 10 devices. Click the column headings for more information. See *Design units for measurement* on page 19 for more information on du measurements and conversion.



Device-specific elements

Model	Screen resolution and density	App icon size (pixels)	Active Frames size (pixels)
BlackBerry Z10 smartphone Porsche Design P'9982 smartphone from BlackBerry	768 x 1280 pixels 356 ppi	110×110	334 x 396
BlackBerry Z30 smartphone BlackBerry Z3 smartphone BlackBerry Leap smartphone	720 x 1280 pixels* 295 ppi*	96 x 96	319 x 437

Model	Screen resolution and density	App icon size (pixels)	Active Frames size (pixels)
	*Emulated screen dimensions for BlackBerry Z3		
BlackBerry Q10 smartphone Porsche Design P'9983 smartphone from BlackBerry BlackBerry Q5 smartphone	720 x 720 pixels 330 ppi	90 x 90	310 x 211
BlackBerry Passport smartphone	1440 x 1440 pixels 453 ppi	144 x 144	Two sizes are supported: Large: 440 x 486 Small: 440 x 195
BlackBerry Classic smartphone	720 x 720 pixels 294 ppi	90 x 90	310×211

Common elements

In-app icon sizes:

The focal area refers to the size of the symbol within the icon itself.

- Action bar and menu icons (large): 8 x 8 du (focal area 5.5 x 5.5 du).
- Components (medium): 7 x 7 du (focal area 4.5 x 4.5 du).
- Small buttons (small): 6 x 6 du (focal area 4.5 x 4.5 du).

Indicator sizes:

- Large: 5 x 4 du
- Small: 3 x 3 du

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